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EXAMINER	
RIVELL, JOHN A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/820,551	APOSTOLIDES, JOHN K.	
	Examiner	Art Unit	
	John Rivell	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/1/07 (RCE)*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18,37-41,44,55-69 and 81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,37-41,44,55-69 and 81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 1, 2007 has been entered.

Claims 19-36, 42, 43, 45-54 and 70-80 have been canceled. New claim 81 has been added. Thus claims 1-18, 37-41, 44, 55-69 and 81 are pending.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "second check valve in fluid communication with at least one fluid reservoir", in the closed loop system recited in claim 55, of claim 58 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-18, 37-41, 44 and 58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 7, lines 12-13 now explicitly recite "... an inlet of said second check valve being in fluid communication with at least the first portion of said fluid system", the "first portion" of the fluid system also being connected to the outlet of the first check valve (claim 7, lines 5-6). As such, the claim requires the "system" to be closed loop as shown in figure 36 where the outlet of the second check valve 2602 is communicated to the inlet of the first check valve 2608 via the "system" and its "first portion" generally illustrated as the fluid loop 2606. The recitation of "said fluid system" of line 30, invokes interconnection of plural, otherwise independent "systems" for which there is no basis in the application as originally filed.

On review of the specification as originally filed, there appears to be no support for the closed loop "system" of figure 36 to be interconnected with other systems. In fact, there appears to be no basis for a closed loop system, as shown in figure 36 only, to be duplicated so as to provide for communication with additional e.g. "third", "fourth", etc. check valves and additional "systems". The open loop embodiments, shown in figs, 32-35 and 38-40 clearly include the additional "third", "fourth", etc. check valves and additional "systems" but each "system" is independent of the other(s). Consequently, there is no basis for the interconnection of plural otherwise independent "systems" as is now claimed in claim 7. For the purpose of the rejection below, those recitations concerning "said fluid system" which are otherwise unsupported in the specification will be treated as meaning second, third, fourth, etc. "systems" independent of each other as set forth in the specification.

Claim 10, as amended, now requires the "second check valve" of the first assembly, and the "third check valve" of the second assembly, to be connected to a "reservoir.

Claim 7, from which claim 10 depends, is readable on the closed loop system only as noted above. The closed loop system disclosed in the original specification has no "reservoir". Rather the "reservoir(s)" are included in the open loop system(s) of figs. 32-35 and 38-40. Thus the explicit features of claim 10 have no basis in the application as originally filed.

The same comments above concerning claim 7 apply as well, in the same manner, to claim 13 with respect to the plural recitations of "a fluid system" and "said fluid system" in the invoked closed loop system.

The comments concerning claim 10 apply equally as well to claim 16 concerning the recitation of "second, fourth and sixth check valves". Also concerning claim 16, the claim depends ultimately on claim 7 which invokes a closed loop system. As disclosed, the closed loop system has no "reservoir" to which any one of the "second, fourth and sixth check valves" can be connected to. Such a (respective) reservoir is illustrated in the open loop embodiment disclosed in figures 33, 35 and 38-40.

The same comments above concerning claim 7 apply as well, in the same manner, to claim 37 with respect to the plural recitations of "a fluid system" and "said fluid system" in the invoked closed loop system.

The comments concerning claim 10 apply equally as well to claim 40 concerning the recitation of "second" and "fourth" check valves being connected to a reservoir. Also concerning claim 40, the claim depends ultimately on claim 37 which invokes a closed loop system. As disclosed, the closed loop system has no "reservoir" to which any one of the "second, fourth and sixth check valves" can be connected to. Such a (respective) reservoir is illustrated in the open loop embodiment disclosed in figures 33, 35 and 38-40.

Claim 55, from which claim 58 depends, recites explicitly in lines 12-13 that the "inlet of said second check valve (is) in fluid communication with at least the first portion of said fluid system", the "first portion" of the fluid system also being connected to the

outlet of the first check valve (claim 55, lines 4-5). As such, the claim requires the "system" to be closed loop as shown in figure 36 where the outlet of the second check valve 2602 is communicated to the inlet of the first check valve 2608 via the "system" and its "first portion" generally illustrated as the fluid loop 2606.

On review of the specification as originally filed, there appears to be no support for the closed loop "system" of figure 36 to include a "reservoir" as recited in claim 58 and as shown in for example, the embodiments of figures 32-35 and 38-40, which "system(s)" are considered to be open looped because the "portion of a fluid system" as depicted in the figures, and on review of the written portion of the specification is not fluidly connected to the fluid reservoir. Consequently, the scope of claim 58, which now appears to combine features of distinct embodiments, has no basis for support in the application as originally filed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18, 37-41, 44, and 81 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, line 4 recites "a portion of a fluid system". Line 11 recites "a portion of the fluid system". Claim 1 is readable on at least two of the distinct embodiments disclosed, e.g. 1) the embodiments of figures 32-35 and 38-40 in which the "system" is open looped, i.e. the "portion of a fluid system" as depicted in the figures is not fluidly connected to the fluid reservoir, and 2) the embodiment of figure 36 in

which the "system" is closed looped, i.e. the "portion of the fluid system" is fluidly connected to the "portion of the system". It is unclear as to which "portion" line 11 of the claim is specifically referring to. Accordingly, in the action below, the recitation "portion" will be considered in light of both embodiments. That is, the scope of the claim will be considered in light of the "portion" meaning the same portion as well as meaning a different portion as supported by the disclosure.

In claim 81, see lines 4 and 11 and the alike recitations of "the portion. The above comments concerning this recitation on claim 1 apply here as well.

Regarding claim 7, line 23, the recitation of "a fluid system" is not fully understood given that the claim invokes a closed loop "system". That is, it is not clear whether applicant intends an additional system to be added to the claim or if the same "system" (first recited in line 6) is intended. Further, line 30 recites "said system". It is unclear to which "system" this recitation refers to.

The same is true throughout the remainder of the noted pending claims when the recitations "a system" and/or "said system" appear in later dependent claims. See for example, claim 13 (which depends from claim 7 which depends from claim 1), line 6 , "a (third/another?) fluid system"; line 7, "said fluid system", claim 14, lines 1-3 which include three separate recitations of "a fluid system"

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 5 and 6 are rejected under 35 U.S.C. §102 (b) as being anticipated by Raines (U. S. Pat. No. 4,246,932).

Relative to the above, when the scope the term "portion" in line 11 of claim 1 is considered to mean a different "portion" of the fluid system, such as in an open loop "system" as depicted in instant application figures 32-35 and 38-40 the following applies.

The patent to Raines discloses, in figures 2 and 4 for example, a "valve assembly comprising: a first check valve (outlet disk 152) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (152), further comprising an outlet (124) of said first check (152) valve being in fluid communication with at least a portion (the use "portion" represented by conduit C') of a fluid system (read as both the supply source and the fluid feeding inlet conduit C, the entirety of the valve and body as well as the outlet conduit C" and whatever is fed by outlet conduit C'); wherein the application of positive pressure (from the syringe S) causes fluid to flow from a common refill/evacuation location (at 100) through said first check valve (152) into said fluid system: a second check valve (inlet disk 150) having an outlet in fluid communication with said inlet of said first check valve (152), said second check (150) valve being structured to permit fluid flow therethrough in response to application of negative pressure at said outlet of said second check valve (150), further comprising an inlet of said second check valve (150) being in fluid communication with a portion (the supply portion) of said fluid system, wherein the application of negative pressure (at common refill/evacuation location 100) causes fluid to flow from said fluid

system (supply portion) through said second check valve (150) into the common refill/evacuation location (100); and, an inlet/outlet port (bore 60 which receives syringe S) in fluid communication with said inlet of said first check valve (152) and said outlet of said second check valve (150) at the common refill/evacuation location (100)" as recited.

Regarding claim 4, in Raines, said second check valve (at inlet disk 150 is) in fluid communication with at least one (inherent) fluid reservoir" supplying fluid thereto as recited.

Regarding claim 5, in Raines, "at least one quick disconnect connection (at the press in fit between the syringe S and the bore 60 is) operatively associated with said inlet/outlet port" as recited.

Regarding claim 6, in Raines, "at least one fluid component (at syringe S is) in fluid communication with said inlet/outlet port (60, 100)" as recited.

Relative to the above, when the scope the term "portion" in line 11 of claim 1 is considered to mean the same "portion" of the fluid system, such as in a closed loop "system" as depicted in instant application figure 36 the following applies.

Claims 1, 4, 5 and 6 are further and claims 55 and 58-67 are rejected under 35 U.S.C. §102 (b) as being anticipated by Manz et al. (U. S. Pat. No. 4,805,416).

The patent to Manz et al. discloses, in the embodiment of figure 5 for example, a "valve assembly comprising: a first check valve (at check valve 124) structured to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (124), further comprising an outlet of said first check (124) valve being

in fluid communication with at least a portion (the use "portion" represented by the outlet line from valve 124, to tank 58, from tank 58 to valve 84, from valve 84 to check valve 86 and from check valve 86 back to check valve 124, completing the loop) of a fluid system (the refrigeration fluid circuit described above); wherein the application of positive pressure (at the recharge port of manifold 32) causes fluid to flow from a common refill/evacuation location (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) through said first check valve (124) into said fluid system: a second check valve (at check valve 86) having an outlet in fluid communication with said inlet of said first check valve (124), said second check (86) valve being structured to permit fluid flow therethrough in response to application of negative pressure (generated at the recovery port of manifold 32 and communicated to the fluid circuit "system" by the single line from manifold 32 shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) at said outlet of said second check valve (86), further comprising an inlet of said second check valve (86) being in fluid communication with a portion (the same "portion" to which the outlet of the first check valve 124 is in communication with) of said fluid system, wherein the application of negative pressure (generated at the recovery port of manifold 32 and communicated to the fluid circuit "system" by the single line from manifold 32 shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) causes fluid to flow from said fluid system through said second check valve (86) into the common refill/evacuation location; and, an inlet/outlet port (the point

of communication of the single line from manifold 32 to/from the fluid circuit "system" between check valve 86 and check valve 124) in fluid communication with said inlet of said first check valve (124) and said outlet of said second check valve (86) at the common refill/evacuation location" as recited.

Regarding claim 4, in Manz et al., said second check valve (86 is) in fluid communication with at least one (inherent) fluid reservoir" supplying refrigerant through the recharge port of manifold 32 as recited.

Regarding claim 5, in Manz et al., "at least one quick disconnect connection (read at the commonly used threaded connection of the single line to the fluid circuit "system") operatively associated with said inlet/outlet port" as recited.

Regarding claim 6, in Manz et al., "at least one fluid component (at manifold 32 is) in fluid communication with said inlet/outlet port" as recited.

Regarding claim 55, in making and/or using the device of Manz et al. one necessarily performs a "method of performing at least one fluid operation in a fluid system (the "system" is represented by the outlet line from valve 124, to tank 58, from tank 58 to valve 84, from valve 84 to check valve 86 and from check valve 86 back to check valve 124, completing the loop), said method comprising: structuring a first check valve (124) to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (124), further structuring said first check valve (124) with an outlet in fluid communication with a first portion of a fluid system (the fluid circuit loop), wherein the application of positive pressure (from the recharge port in manifold 32, fed to the circuit by the single line shown connecting the manifold to the

circuit) causes fluid to flow from a common refill/evacuation location (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) through said first check valve (124) into said fluid system (circuit); structuring a second check valve (86) having an outlet in fluid communication with said inlet of said first check valve (124), further structuring said second check valve (86) to permit fluid flow therethrough in response to application of negative pressure (generated at the recovery port of the manifold 32 and communicated to the circuit, between check valve 86 and check valve 124 by the single line shown connecting the manifold 32 to the circuit) at said outlet of said second check valve (86); further structuring said second check valve (86) such that said second check valve (86) comprises an inlet of said second check valve (86) being in fluid communication with at least the first portion of said fluid system (since the loop from check valve 124 to check valve 86 is closed, the outlet of the first 124 is connected to the inlet of the second 86 as recited), wherein the application of negative pressure (generated at the recovery port of the manifold 32 and communicated to the circuit, between check valve 86 and check valve 124 by the single line shown connecting the manifold 32 to the circuit) causes fluid to flow from said fluid system through said second check valve (86) into the common refill/evacuation location (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124); and, positioning an inlet/outlet port (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) in fluid

communication with said inlet of said first check valve (124) and said outlet of said second check valve (86) at the common refill/evacuation location" as recited.

Regarding claim 58, in making and/or using the device of Manz et al. one necessarily further performs a step in which one positions "said second check valve (86) in fluid communication with at least one (inherent) fluid reservoir" supplying fluid thereto via the charge port in manifold 32 as recited.

Regarding claim 59, in making and/or using the device of Manz et al. one necessarily further performs a step in which one "operatively (associates) at least one quick disconnect (read at the commonly used threaded connection of the single line to the fluid circuit "system") with said inlet/outlet port" as recited.

Regarding claim 60, in making and/or using the device of Manz et al. necessarily further performs a step in which one "operatively (associates) at least one fluid component (at manifold 32) in fluid communication with said inlet/outlet port" as recited.

Regarding claim 61, in making and/or using the device of Manz et al. one necessarily further performs a step in which one applies "positive pressure at said common refill/evacuation location", as recited, when refrigerant is refilled into the circuit via the charge port of manifold 32.

Regarding claim 62, in making and/or using the device of Manz et al. one necessarily further performs a step in which one applies "negative pressure (generated at the recovery port of the manifold 32 and communicated to the circuit, between check valve 86 and check valve 124 by the single line shown connecting the manifold 32 to the circuit) at said common refill/evacuation location after said applying positive

pressure at said common refill/evacuation location", as recited, when refrigerant is refilled into the circuit from manifold 32.

Regarding claim 63, in making and/or using the device of Manz et al. one necessarily further performs a step in which one, by repeated recovery and recharge via manifold 32, performs "at least one fluid refill operation by said applying positive pressure at said common refill/evacuation location" as recited.

Regarding claim 64, in making and/or using the device of Manz et al. one necessarily further performs a step in which one performs "at least one filter purge operation by said applying positive pressure at said common refill/evacuation location (100)" as recited. That is, the act of applying positive pressure, via the charge port of manifold 32 is read as a "filter purge operation" as the scope of the claim language does not positively define a filter element.

Regarding claim 65, in making and/or using the device of Manz et al. one necessarily further performs a step in which one applies "negative pressure at said common refill/evacuation location", via the recovery port of manifold 32 as recited.

Regarding claim 66, in making and/or using the device of Manz et al. one necessarily further performs a step in which one applies "positive pressure at said common refill/evacuation location (at the charge port of manifold 32) after said applying negative pressure at said common refill/evacuation location" upon repeated cycles of charge and recovery of refrigeration via manifold 32.

Regarding claim 67, in making and/or using the device of Manz et al. one necessarily further performs a step in which one performs "at least one fluid evacuation

operation by said applying negative pressure at said common refill/evacuation location" when recovering refrigerant via manifold 32.

Regarding claim 68, in making and/or using the device of Manz et al. one necessarily performs a "method of performing a fluid operation, said method comprising: structuring a first check valve (124) to permit fluid flow therethrough in response to application of positive pressure at an inlet of said first check valve (124), further structuring said first check valve (124) with an outlet in fluid communication with a portion of a fluid system (the "system" is represented by the outlet line from valve 124, to tank 58, from tank 58 to valve 84, from valve 84 to check valve 86 and from check valve 86 back to check valve 124, completing the loop), wherein the application of positive pressure (generated at the charge port of manifold 32 when charging refrigerant into the system) causes fluid flow to flow from a common refill/evacuation location (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) through said first check valve (124) into said fluid system; structuring a second check valve (86) having an outlet in fluid communication with said inlet of said first check valve (124), further structuring said second check valve (86) to permit fluid flow therethrough in response to application of negative pressure (generated at the recovery port of the manifold 32 and communicated to the circuit, between check valve 86 and check valve 124 by the single line shown connecting the manifold 32 to the circuit) at said outlet of said second check valve (86), further structuring said second check valve (86) such that said second check valve (86) comprises an inlet of said second check valve being in fluid communication

with at least a first portion of said fluid system (via the circuit loop), wherein the application of negative pressure (generated at the recovery port of manifold 32 when recovering refrigerant) causes fluid flow to flow from said fluid system (connected to the inlet of the second check valve 86) through said second check valve (86) into the common refill/evacuation location; positioning an inlet/outlet port (that point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) in fluid communication with said inlet of said first check valve (124) and said outlet of said second check valve (86) at the common refill/evacuation location (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124); applying positive pressure (when refrigerant is refilled into the circuit via the charge port of manifold 32) at said common refill/evacuation location to purge at least a pre-filter portion (read as any "portion" as the claim does not specifically require a filter element) of said portion of a fluid system; applying negative pressure (generated at the recovery port of the manifold 32 and communicated to the circuit, between check valve 86 and check valve 124 by the single line shown connecting the manifold 32 to the circuit) at said common refill/evacuation location (the point where the single line from manifold 32 is shown connected to the above described fluid circuit "system" between check valve 86 and check valve 124) to evacuate fluid through said inlet/outlet port; and, applying positive pressure (when charging the system with refrigerant from the charge port of manifold 32) at said common refill/evacuation

location to refill at least one fluid through at least said portion of a fluid system" as recited.

Response to Arguments

Regarding applicants remarks concerning the rejection above under 35 USC §102(b) in view of Raines, the arguments on pages 20-21 that:

> "Raines clearly does not (emphasis in original) disclose an inlet of the inlet disk 150 (second check valve) being in fluid communication with at least a portion of said fluid system (and that) [t]he structure of the assembly of Claim 1 functions to permit both fluid evacuation operations and fluid refill operations to be accomplished through the "inlet/outlet port" at the "common refill/evacuation location" of the assembly".

are moot given that claim 1 is readable on distinct embodiments of the invention, which distinction is based on whether the "system" is open or closed looped. Further, dependent claim 4, which is to be considered as further limiting (see 35 USC 112§ (4)), limits the "second check valve (to) being in fluid communication with at least one fluid reservoir." As illustrated in the instant drawings, figures 32-35 and 38-40 are the only figures demonstrative of a "fluid reservoir". These embodiments are considered open looped as the outlet is not disclosed as being in fluid communication with the inlet.

Additionally, in the embodiments of figures 32-35 and 38-40, in contrast to applicants comments, it is not seen as possible to completely "evacuate" all fluid from the "system" through the common refill/evacuation port. For example, in figure 32, when the "fluid component" 2120 is evacuating fluid from the "system" the component can only evacuate fluid from the supply side from the "reservoir 2110 through the inlet check valve 2108 to the common refill/evacuation point 21004 to the component 2120.

Fluid cannot be evacuated from the "portion" of the fluid system at 2106 because of the presence of check valve 2102 which allows fluid flow only in the direction from common point 2104 to the "portion" 2106 and the fact that the outlet of the second check valve at 2102 is not (or is not disclosed as being) connected to the inlet of check valve 2108. Likewise, but in reverse, the component 2120 cannot refill the reservoir part of the "system" during refill because of the presence of check valve 2108 which allows fluid flow only in the direction from reservoir 2110 to the common point 2104.

Applicants further comments, on pages 21-22 that:

> "the Raines assembly only functions to provide fluid flow from a source (which is not shown or described in Raines), through an interior of its assembly 10, receiver (also not shown or described in Raines). There is no teaching or suggestion in Raines of performing an evacuation procedure, for example, by forcing the fluid to flow from the receiver back to the source through the fluid system."

is agreed with in the context of reading the claim on a closed loop recirculating "system". However, as the claim as written is readable on both an open loop and a closed loop "system" the argument is moot in that in an open loop system, there is no fluid communication from the point of use to the supply, as in Raines.

Regarding applicants remarks as they may apply to the above rejection in view of Manz et al., Manz et al. discloses a closed loop "system" where the outlet of the first check valve 124 is ultimately fluidly connected to the inlet of the second check valve 86. Additionally the outlet of the second check valve 86 is connected to the inlet of the first check valve 124 and this connection includes a common refill/evacuation point where the single line from manifold 32 is shown

connected to the above described fluid circuit "system" between check valve 86 and check valve 124. During recovery of refrigerant, negative pressure is applied at the recovery port of manifold 32 and communicated to the refrigerant circuit between check valves 86 and 124 to remove refrigerant from the circuit. During charging of the circuit with refrigerant positive pressure refrigerant is applied to the charge port of manifold 32 and supplied to the circuit between the check valves 86 and 124.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 3 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raines in view of Gargas (U. S. Pat. No. 4,684,334).

The patent to Raines discloses all the claimed features with the exception of having "said fluid system portion includes at least a pre-filter portion... being in fluid communication with at least one fluid filter".

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a "pre-filter portion" of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Raines a filter element downstream of the pump assembly, in conduit C, thus forming a "pre-filter portion" for the purpose of

filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

Claims 2, 3 and 81 are further, and claims 56, 57 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manz et al. in view of Gargas (U. S. Pat. No. 4,684,334).

The patent to Manz et al. discloses all the claimed features with the exception of having "said fluid system portion includes at least a pre-filter portion... being in fluid communication with at least one fluid filter".

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a "pre-filter portion" of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Manz et al. in the line connecting the manifold 32 to the refrigerant circuit between check valves 86 and 124, a filter element thus forming a "pre-filter portion" for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

Response to Arguments

Regarding applicants remarks concerning the addition of a filter element as taught by Gargas in the device of Raines, the argument that:

> "It would seem highly unlikely (e.g., not obvious) to use a filter to remove contaminates from medication."

is not well taken. If in the event there were contaminants in the medication supplied by the device of Raines, a filter element at the outlet would indeed prevent those contaminants from proceeding to the point of use.

The further argument that the inclusion of a filter element renders the Raines device "unsatisfactory for its intended purpose", by reason that the additional part of the filter would render the device less efficiently manufacturable, more costly to manufacture, has more parts and would not be quickly assembled, allegedly violating the "Object if the Invention" section of the patent disclosure, is not well taken.

The indented purpose of the device of Raines is to withdraw fluid from a first location and to inject that fluid into another location. The addition of a filter element does nothing to render inoperable this function.

Claims 7, 10-13, 16-18, 37, 40, 41 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manz et al.

Manz et al. discloses the claimed invention except for additional "valve assemblies" including "second" and "third" valve assemblies, each additional assembly including a respective inlet and outlet check valves connected to a common "refill/evacuation location" its own "reservoir" connected to the inlet, its own "quick disconnect connection" at the common port and its own "fluid component" associated with the common port.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the valve assembly of Manz et al. such

that one employs multiple separate individual valve assemblies to transfer fluid from respective individual inlets to respective individual outlets, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art unless a new and unexpected result is produced. *In re Harza* ,274 F.2d 669,124 USPQ 378 (CCPA 1960).

In comparing the claim language at issue with the single valve assembly of Manz et al., it is clear that the claim language merely reflects multiple individual separate assemblies, each one of which is no different than the other or from that assembly demonstrated to be known by Manz et al.

Claims 8, 9, 14, 15, 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manz et al., as applied to claims 7, 10-13, 16-18, 37, 40, 41 and 44 above, further in view of Gargas.

The patent to Manz et al., as modified under §103 above, discloses all the claimed features with the exception of having "said fluid system portion includes at least a pre-filter portion... being in fluid communication with at least one fluid filter".

The patent to Gargas discloses that it is known in the art to employ a filter element at 11 downstream of a pump assembly, essentially forming a "pre-filter portion" of the downstream fluid circuit for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Manz et al. a filter element in the conduit connecting the manifold 32 to the refrigeration circuit at the single point illustrated, thus forming a "pre-filter portion" for the purpose of filtering out contamination prior to fluid utilization by the downstream system thus preventing blockage of the system by such filtered contamination as recognized by Gargas.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Fri. from 6:30am-3:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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j.r.